**Modeling Quadratic Functions Assignment**

1. An ice cream shop sells 700 ice cream cones per day at a price of $4.50. The owner knows that they will sell another 100 ice cream cones for every $0.50 decrease in the price.
2. What price should the owner charge if they wish to earn a maximum daily revenue?
3. What is the maximum daily revenue?
4. A dinner theatre has 600 season ticket holders. The theatre owners have decided to raise the price of season tickets from the current price of $400. For every $50 increase in the price, 30 season ticket holders will NOT renew their seats.
5. What should the theatre charge for each season ticket in order to maximize their revenue?
6. How many people will still buy season tickets if the owners decide to apply the new price?

**Answers:**

1. a) $4.00 b) $3200

2. a) $700 b) 420 people